

WHAT IS CLAIMED:

1. A missile or aircraft comprising
 - a. an afterbody and a forebody;
 - b. at least one activatable flow effector on the missile or aircraft afterbody;
 - c. at least one sensor having a signal, the at least one sensor being positioned to detect a force or flow condition on the missile or aircraft afterbody; and
 - d. a closed loop control system;

wherein the closed loop control system is used for activating and deactivating the at least one activatable flow effector based on at least in part the signal of the at least one sensor.
2. The missile or aircraft in claim 1, wherein the closed loop control system activates and deactivates the at least one activatable flow effector to create commanded forces on the missile or aircraft afterbody.
3. The missile or aircraft in claim 2, wherein the closed loop control system activates the at least one activatable flow effector by oscillation.
4. The missile or aircraft in claim 1, comprising at least two activatable flow effectors wherein the closed loop control system activates and deactivates the at

least two activatable flow effectors in a pattern.

5. The missile or aircraft in claim 1, wherein the at least one sensor is a pressure sensor.
6. The missile or aircraft in claim 5, wherein the at least one activatable flow effector is a plasma actuator.
7. The missile or aircraft in claim 1, wherein the at least one activatable flow effector is located on a tail fin or boattail of the missile or aircraft.
8. A flow control system for a missile or aircraft afterbody comprising
 - a. at least one activatable flow effector;
 - b. an inertial measurement unit having an output; and
 - d. a closed loop control system;wherein the closed loop control system is used for activating and deactivating the at least one activatable flow effector based on at least in part the signal of the output of the inertial measurement unit.
9. The flow control system in claim 8, comprising at least two activatable flow effectors wherein the closed loop control system activates and deactivates the at least two activatable flow effectors in a pattern.
10. The flow control system in claim 8, wherein the at least one activatable

flow effector is capable of being activated and deactivated at frequencies of at least 20 Hz.

11. The flow control system in claim 8, wherein the closed loop control system activates and deactivates the at least one activatable flow effector to create commanded forces on the missile or aircraft.

12. The flow control system in claim 8, wherein the closed loop control system activates and deactivates the at least one activatable flow effector to create in part a yawing moment on the missile or aircraft.

13. The flow control system in claim 8, wherein the closed loop control system activates and deactivates the at least one activatable flow effector to create in part a pitching moment on the missile or aircraft.

14. The flow control system in claim 8, wherein the closed loop control system activates and deactivates the at least one activatable flow effector to create in part a rolling moment on the missile or aircraft.

15. A method of maneuvering a missile or aircraft comprising the steps of

- a. activating at least one activatable flow effector to create forces or flow conditions on a missile or aircraft afterbody;
- b. estimating or determining forces or flow conditions on the missile or an aircraft afterbody based at least in part on a signal from at least one sensor, the at least one sensor being positioned to detect side forces or flow separation on the missile or aircraft afterbody; and
- c. deactivating the at least activatable one flow effector in response to changed side forces or flow conditions.

16. The method of maneuvering in claim 15, wherein the at least one activatable flow effector is activated by oscillating the at least one activatable flow effector.

17. The method of maneuvering in claim 15, comprising at least two activatable flow effectors wherein the closed loop control system activates and deactivates the at least two activatable flow effectors in a pattern.

18. The method of maneuvering in claim 15, wherein the at least one activatable flow effector is activated to create in part a rolling moment on the missile or aircraft.

19. The method of maneuvering in claim 15, wherein the at least one activatable flow effector is activated to create in part a yawing moment on the missile or aircraft.

20. The method of maneuvering in claim 15, wherein the at least one activatable flow effector is activated to create in part a pitching moment on the missile or aircraft.